

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 03/104794 A1

- (51) International Patent Classification⁷: G01N 30/00, 33/50 (74) Agents: STRÖM, Tore et al.; Ström & Gulliksson IPC AB, Box 4188, S-203 13 Malmö (SE).
- (21) International Application Number: PCT/SE03/00937 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 5 June 2003 (05.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0201705-1 5 June 2002 (05.06.2002) SE (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): SP SVERIGES PROVINGS OCH FORSKNINGSINSTITUT AB [SE/SE]; Box 857, S-501 15 Borås (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): LAUSMAA, Jukka [SE/SE]; Trojenborgsplatsen 3, S-415 03 Göteborg (SE). SJÖVALL, Peter [SE/SE]; Östgårdsliden 26, S-435 37 Mölnlycke (SE). NYGREN, Håkan [SE/SE]; Billdals Hasselväg 1, S-427 38 Billdal (SE).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: A METHOD FOR ANALYZING THE SPATIAL DISTRIBUTION OF A CHEMICAL SUBSTANCE RETAINED BY A BIOLOGICAL MATTER

(57) Abstract: A method of analyzing the spatial distribution of at least one chemical substance retained by a biological matter comprises the steps of (a) supplying a sample of said biological matter as a specimen surface; (b) producing at least one imprint of said specimen surface on at least one corresponding separate substrate surface, said at least one chemical substance being transferred to the same with retained lateral distribution thereon; (c) subjecting said at least one imprint to imaging mass spectrometry, at least one signal from at least two points being produced, the magnitude of said at least one signal being dependent on the amount of said at least one chemical substance laterally present on said substrate surface; (d) recording said at least one signal from said at least two points; and (e) determining said spatial distribution of said at least one chemical substance from said at least one image of said at least one imprint.

WO 03/104794 A1